Request No. DTE 1-2:
Refer to Exh. FGE - Schedule JHA-1 (Gas) at 38 of 56. Please provide a complete explanation of the "engineering judgement" used to propose (1) an average service life of 40 years for Account 365.00, (2) an average service life of 40 years for Account 364.00, and (3) an average service life of 46 years for Account 362.00.

Response:
(1) The SPR-BAL analyses produced top five statistically ranked Iowa curves having associated average service lives (ASL) of:

Analysis Band	**Range of Ranks 1 to 5 (Years)**
1991-2000	67 to 84
1981-2000	59 to 81
1971-2000	37 to 77

We generally discounted the top 5 ranking curves as 13 of the 15 associated average lives were over 50 years and, to be specific, 13 were equal to or greater than 59 years. A primary reason to discount most of the high lives is the associated ages at which the given curves predict zero survivors, i.e., the age at which the curve drops to zero, known as the maximum probable life (MPL). The MPL values of those curves with ASL's of 59 years and higher range from a low 121 years to a high of 243 years. To project that some portion of each year's capital additions will survive 121 years or more is not realistic.

Although some overhead conductors could possibly survive 59 years, it is very unlikely the average will prove to be 59 years or more; hence, we look at more than just the top 5 best ranked curves and lives.

The existing/authorized accrual rate is based upon a 35-year average life estimate. Further, the prior study (1997 plant) estimate was a 40-year average life for Account 365.00. Given what we know of the industry and based on our experience plus the Company expectation of increased Distribution Plant retirements, we propose a moderate increase in the average life (ASL) estimate to 40 years.

(2) The SPR-BAL analyses produced top five statistically ranked Iowa curves having associated average service lives (ASL) of:

Analysis Band	**Range of Ranks 1 to 5 (Years)**
1991-2000	54 to 70
1981-2000	35 to 73
1971-2000	35 to 36

We generally discounted the top 5 ranking curves as 9 of the 15 associated average lives were over 50 years and, to be specific, 9 were equal to or greater than 54 years. A primary reason to discount most of the high lives is the associated ages at which the given curves predict zero survivors, i.e., the age at which the curve drops to zero, known as the maximum probable life (MPL). The MPL values of those curves with ASL's of 54 years and higher range from a low 108 years to a high of 287 years. To project that some portion of each year's capital additions will survive 108 years or more is not realistic.

Although some poles, etc. could possibly survive 54 years, it is very unlikely the average will prove to be 54 years or more; hence, we look at more than just the top 5 best ranked curves and lives.

The existing/authorized accrual rate is based upon a 40-year average life estimate. Further, the prior study (1997 plant) estimate was a 40-year average life for Account 364.00. In spite of the fact most SPR-BAL ASL indications are above 40 years, given what we know of the industry and based on our experience plus the Company expectation of increased Distribution Plant retirements, we propose no change to the average life (ASL) estimate of 40 years.

(3) The SPR-BAL analyses produced top five statistically ranked Iowa curves having associated average service lives (ASL) of:

Analysis Band	**Range of Ranks 1 to 5 (Years)**
1991-2000	48 to 51
1981-2000	66 to 107
1971-2000	73 to 106

We generally discounted the top 5 ranking curves as 12 of the 15 associated average lives were over 50 years and, to be specific, 12 were equal to or greater than 51 years. A primary reason to discount most of the high lives is the associated ages at which the given curves predict zero survivors, i.e., the age at which the curve drops to zero, known as the maximum probable life (MPL). The MPL values of those curves with ASL's of 51 years and higher range from a low 99 years to a high of 381 years. To project that some portion of each year's capital additions will survive 99 years or more is not realistic.

Although some station equipment could possibly survive 51 years, it is very unlikely the average will prove to be 51 years or more; hence, we look at more than just the top 5 best ranked curves and lives.

The existing/authorized accrual rate is based upon a 35-year average life estimate. Further, the prior study (1997 plant) estimate was a 40-year average life for Account 362.00. Given what we know of the industry and based on our experience plus the Company expectation of increased Distribution Plant retirements, we propose a moderate increase in the average life (ASL) estimate to 46 years.

Person Responsible: James H. Aikman